IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-50 (Canceled).

Claim 51 (Currently Amended): A method for screening a candidate ligand molecule, comprising:

a) preparing a biological material comprising a cell sample, [[or]] cell homogenate, or a tissue sample;

b) incubating the biological material of a) in the presence of (i) $10^{-10} - 10^{-5}$ M of a candidate ligand molecule under conditions suitable for activation of adenylate cyclase and in the presence of a submaximal concentration of QHNPR (SEQ ID NO: 1) peptide; and

c) measuring adenylate cyclase activity present in the biological material of a), respectively, in the presence or in the absence of the candidate ligand molecule and in the presence or in the absence of a submaximal concentration of the peptide QHNPR (SEQ ID NO: 1), and

d) selecting a ligand molecule which increases or decreases adenylate cyclase activity induced in the biological material of a) by the peptide QHNPR (SEQ ID NO: 1).

Claim 52 (Previously Presented) The method of Claim 51, wherein the biological material in a) is a confluent target cell culture monolayer.

Claim 53 (Previously Presented) The method of Claim 51, wherein the biological material in a) is a target organ specimen.

Claim 54 (Previously Presented) The method of Claim 51, wherein the biological material in a) is a tissue cryosection.

Claim 55 (Previously Presented): The method of Claim 51, wherein the biological material in a) is a tissue slice.

Claim 56 (Previously Presented): The method of Claim 51, wherein the biological material in a) is a cell homogenate.

Claim 57 (Previously Presented): The method of Claim 51, wherein the biological material in a) is a primary cell culture.

Claim 58 (Previously Presented): The method of Claim 51, wherein the biological material in a) is an established cell line.

Claim 59 (Currently Amended) A method for screening a candidate ligand molecule, comprising:

~~a) culturing a eukaryotic cell capable of synthesizing collagen;~~

[[b)]] incubating [[the]] a eukaryotic cell capable of synthesizing collagen[[of a)]] in [[a]] beta-glycerophosphate in the presence of 10^{-10} - 10^{-5} M of [[the]] a candidate ligand molecule and in the presence of a submaximal concentration of QHNPR (SEQ ID NO: 1) peptide;

[[c]]) measuring production of a specific metabolite in the presence or in the absence

of the candidate ligand molecule and in the presence of in the absence of a submaximal concentration of QHNPR (SEQ ID NO: 1), and

[[d)]] selecting a ligand molecule which increases or decreases the production of [[the]] a specific metabolite induced by the QHNPR (SEQ ID NO: 1) peptide.

Claim 60 (Previously Presented) The method of Claim 59, wherein said eukaryotic cell is a mammalian cell that naturally synthesizes collagen.

Claim 61 (Previously Presented) The method of Claim 59, wherein said eukaryotic cell is a cell that has been transfected or transformed with a nucleic acid encoding collagen.

Claim 62 (Previously Presented): The method of Claim 59, wherein the specific metabolite is calcium.

Claim 63 (Previously Presented): The method of Claim 59, wherein the specific metabolite is alkaline phosphatase.

Claim 64 (Previously Presented): The method of Claim 59, wherein the specific metabolite is DNA.

Claim 65 (Currently Amended): A method for screening a candidate ligand molecule comprising:

~~a) preparing a biological material comprising a cell sample, cell homogenate or a tissue sample;~~

[[b)]] incubating [[the]] a biological material [[of a)]] comprising a cell sample, cell homogenate, or a tissue sample in the presence of $10^{-10} - 10^{-5}$ M of [[the]] a candidate ligand molecule and in the presence of a submaximal concentration of QHNPR (SEQ ID NO: 1);

[[c)]] measuring a metabolic change, respectively, in the presence or in the absence of the candidate ligand molecule and in the presence or in the absence of a submaximal concentration of the peptide QHNPR (SEQ ID NO: 1),

[[d)]] selecting a ligand molecule which increases or decreases the metabolic change induced by the peptide QHNPR (SEQ ID NO: 1).

Claim 66 (Currently Amended) The method of Claim 65, wherein the biological material [[in a)]] is a target organ specimen.

Claim 67 (Currently Amended) The method of Claim 65, wherein the biological material [[in a)]] is a tissue cryosection.

Claim 68 (Currently Amended) The method of Claim 65, wherein the biological material [[in a)]] is a tissue slice.

Claim 69 (Currently Amended): The method of Claim 65, wherein the biological material [[in a)]] is a cell homogenate.

Claim 70 (Currently Amended): The method of Claim 65, wherein the biological material [[in a)]] is a primary cell culture.

Claim 71 (Currently Amended): The method of Claim 65, wherein the biological material [[in a)]] is an established cell line.

Claim 72 (Previously Presented): The method of Claim 65, wherein the metabolic change is measured by an enzyme assay.

Claim 73 (Previously Presented): The method of Claim 65, wherein the metabolic change is measured by an ion transport assay.

Claim 74 (Previously Presented): The method of Claim 65, wherein the metabolic change is measured by a signal transduction assay.

Claims 75-77 (Cancelled)

Claim 78 (New): The method of Claim 65, comprising selecting a candidate molecule which increases the metabolic change induced by QHNPR (SEQ ID NO: 1) alone.

Claim 79 (New): The method of Claim 65, comprising selecting a candidate molecule which decreases the metabolic change induced by QHNPR (SEQ ID NO: 1) alone.

Claim 80 (New): The method of claim 59, comprising selecting a candidate ligand molecule which increases the production of a specific metabolite induced by the QHNPR (SEQ ID NO: 1) peptide.

Claim 81 (New): The method of claim 59, comprising selecting a candidate ligand

molecule which decreases the production of a specific metabolite induced by the QHNPR (SEQ ID NO: 1) peptide.